IN THE CLAIMS:

1. (Currently Amended) A method of kinetic spray coating a substrate comprising the steps of:

a) providing particles of a powder;

b) injecting the particles into a gas/powder exchange chamber and entraining the particles into a flow of a main gas in the gas/powder exchange chamber, the main gas at a temperature insufficient to heat the particles to a temperature above a melting temperature of the particles;

c) directing the particles entrained in the main gas from the gas/powder exchange chamber into a powder/gas conditioning chamber downstream from ~~different than~~ the gas/powder exchange chamber ~~and having a length along a longitudinal axis of equal to or greater than 20 millimeters~~;

~~increasing a residence time and the temperature of the particles as a result of the directing of the particles along the length of the powder/gas conditioning chamber;~~ and

d) directing the particles entrained in the flow of the main gas from the powder/gas conditioning chamber into a converging diverging supersonic nozzle, thereby accelerating the particles to a velocity sufficient to result in adherence of the particles on the [[a]] substrate positioned opposite the nozzle, the powder/gas conditioning chamber having a length along a longitudinal axis of equal to or greater than 20 millimeters to provide a residence time that the particles are exposed to the main gas between the gas/powder exchange chamber and the nozzle that is sufficient to increase a temperature of the particles between the gas/powder exchange chamber and the nozzle and facilitate adherence of the particles to the substrate without heating the particles to a temperature above the melting temperature of the particles.

2. (Original) The method as recited in claim 1, wherein step a) comprises providing as the particles at least one of an alloy, a metal, a ceramic, a polymer, a metal coated ceramic, a semiconductor, or mixtures thereof.

3. (Original) The method as recited in claim 1, wherein step a) comprises providing particles having an average nominal diameter of from about 1 microns to 250 microns.

4. (Original) The method as recited in claim 1, wherein step b) comprises injecting the particles under a pressure that is from about 5 to 300 pounds per square inch above a pressure of the main gas.

5. (Original) The method as recited in claim 1, wherein the main gas is at a temperature of from about 200 to 1000 degrees Celsius

6. (Original) The method as recited in claim 1, wherein step b) comprises injecting the particles parallel to a longitudinal axis of the gas/powder exchange chamber.

7. (Original) The method as recited in claim 1, wherein step b) comprises injecting the particles at one of an oblique angle relative to a longitudinal axis of the gas/powder exchange chamber or at a tangential angle relative to the gas/powder exchange chamber.

8. (Currently Amended) The method as recited in claim 1, wherein the length of the ~~step c) comprises directing the entrained particles into a~~ powder/gas conditioning chamber is ~~having a longitudinal axis of~~ from about 20 millimeters to about 1000 millimeters.

9. (Original) The method as recited in claim 1, wherein step d) comprises accelerating the particles to a velocity of from about 200 to about 1500 meters per second.

10. (Original) The method as recited in claim 1, wherein step d) comprises providing a substrate comprising at least one of a metal, an alloy, a plastic, a polymer, a ceramic, a wood, a semiconductor or a mixture thereof.

11-20. (Canceled)

21. (Currently Amended) The method as recited in claim 1, wherein the temperature of the particles <u>increases</u> ~~is increased~~ <u>from about 150 degrees to about 250 degrees</u> ~~at least 150 degrees~~ Kelvin <u>as the particles travel in the powder/gas conditioning chamber from the gas/powder exchange chamber to the nozzle</u> ~~as a result of the powder/gas conditioning chamber~~.